

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A process for the preparation of a hydrogenated polymer acrylonitrile-butadiene copolymer comprising the steps of:

hydrogenation of at least one carbon-carbon double bond of an unsaturated polymer acrylonitrile-butadiene copolymer in latex in the presence of hydrazine, an oxidizing compound and a catalyst, followed by

separation of the hydrogenated polymer acrylonitrile-butadiene copolymer from the latex wherein after the separation of the hydrogenated polymer acrylonitrile-butadiene copolymer from the latex a mixing step is carried out in which the hydrogenated polymer acrylonitrile-butadiene copolymer is first mixed with an amine group containing compound and next the hydrogenated polymer acrylonitrile-butadiene copolymer is mixed with a compound that is capable of reacting with an amine, wherein the compound that is capable of reacting with an amine group is a compound according to formula (I):



wherein

R is a unit derived from a (C₁-C₂₀)(cyclo)aliphatic group or a (C₆-C₂₀) aryl group.

X is a unit derived from an epoxide-, an anhydride-, an isocyanate-, an acid chloride- and/or a carboxylic acid and

n=1-5.

2. (Canceled)

3. (Currently Amended) A-~~process~~ The process according to [[Claim 2]] claim 1, wherein the compound according to formula (I) is phthalic acid anhydride, maleic anhydride, acetic anhydride, stearic anhydride, tetrahydrophthalic acid anhydride, cyclohexanedicarboxylic acid anhydride, nadic anhydride and/or succinic anhydride.

4-5. (Canceled)

6. (Currently Amended) ~~A process~~ The process according to ~~Claim 1, to claim 1,~~
wherein the amine group containing compound is an amine according to formula (II) (III):



wherein

R is derived from an aliphatic group comprising at least one C atom or derived from an aromatic group comprising at least 6 C atoms, and

X is a hydrogen atom, NH₂-, OH- or SH-group and Y is a NH₂-, OH- or SH-group.

7. (Canceled)

8. (Currently amended) ~~A process~~ The process according to ~~Claim 1, to claim 1,~~
wherein the catalyst is a compound which contains boron.

9. (Currently Amended) A hydrogenated ~~polymer~~ acrylonitrile-butadiene copolymer
obtained by the process according to ~~Claim 1 to claim 1.~~

10. (Canceled)

11. (Currently Amended) An article based on a ~~polymer obtained with the process~~ the
acrylonitrile-butadiene copolymer according to ~~Claim 1 to claim 9.~~

12. (Currently amended) ~~An article~~ The article according to ~~Claim 11 to claim 11,~~
wherein the article is applied in the automotive industry, in the oil industry, in the electrical industry, in the engineering industry, in the ship building industry, in household machines, in the paper manufacturing industry or in the cable industry.

13. (Currently amended) ~~An article~~ The article according to ~~Claim 12 to claim 12,~~
wherein the article is a belt, a hose, a gasket, a boot, a bellow, a vibration damper or a seal.

14. (Canceled)

15. (Currently Amended) A thermoplastic composition comprising a thermoplastic material and a hydrogenated ~~polymer~~ acrylonitrile-butadiene copolymer according to ~~Claim 9~~ claim 9.

16. (Currently Amended) A thermosetting composition comprising a thermosetting material and a hydrogenated ~~polymer~~ acrylonitrile-butadiene copolymer according to ~~Claim 9~~ claim 9.